SEQUENCE LISTING

<110> Markl, Isabel
      Tomigahara, Yoshitaka
      Liang, Gangning
      Fu, Hualin
      Jones, Peter

<120> Methylation Altered DNA Sequences as Markers Associated with Human Cancer

<130> 47465-14

<160> 103

<170> PatentIn version 3.0

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cgagccaatg tcgctgggct aattatgagt ctgcttatcc cactcccaaa tatccgagac   360

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       gggagtcata ggtgtgtgtg acatcagtgg tggaacattt tggctcgttt tcacaattca      180

       gtcattatcc tttctgcttt cctcctggaa gcattaaggt tgaagttttc ttctaaagat      240

       caaagttttg atttgttata ttagttcgga tttgtttgat ttttgtttgt gttcggtttc      300

       aagtgctgat ttgtaacttt tctccccccc cacacacacg ccttttgacc cctgaattat      360

       ttaaaagtcc attgttggag tggcaaacat cctccgagac tcaaagggca aggccatggg      420

       cgctttattc cggctgctgc tccaggaacg tgggaaagca gcggagtttt attctagggg      480

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        gcgtattaaa acttgattga gagagggaga gagagaggtc attttataaa gaaagacctg    240

        tgaacactgt agattggaaa tttatgtttg caaaataaaa ggatgggttt atcaagtgga    300

        tgcatttaca aaatgtggca tccaggtttc gtaaaattag ctgaattcta cgggtaagat    360

        tatgaatgtg gctcataaat aattaatagg tagtgaaaaa gaatgtattt tgcattaggc    420

        agtgcattca atagtatttc ggaaatgagc acttcgattt cctcggnttc catgcgnggc    480

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        cattttcttg gctcgtgcgc tgaagtgcac gctgggcctt ggtgcccgca ccctcagcct    600

        gggagatagg gaggtggtgc tacctgcagg ccgattgtgt ccccgccata ggacactagt    660

        gggcggcaaa cctcacaaga ctcttgcagc cagccttcag cagagccagc aaacccagcc    720

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<212>   DNA
<213>   Homo sapiens

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<213>   Homo sap●●s

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catagcaggt cctttgccc cggcagccat tcttctgctc acaaggggct ggctctgggg   180

acagggatgt ctttgtcatc agtgaccact aatccccctc ctcattggcc tccagggctg   240

ctccccttca ctctcttggt tgaagttgta ggggctgagg ttaccctgag aaacacctgt   300

tcttggagcc catagaccca accttggaga tgcaggggga gccactggct gggctctgca   360

ngtggggcca gctgatcccc anctgctggc acctccaggc atccacagag cttggagtcc   420

cagccacatt tcctccttgg ccttagaggg agaggaagtc ctttgattgc ctagtccaag   480

atccctttat ttcctgccct gggattatgg ggnagcaagc catgcccttc atgggaagct   540

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cttctgctct tatttccaag cttcgcgctt tctacaaact ccctgttgcc ttgactttga   180

tttccagccg tggtgagggt cagagtgaac cccggcgcgc tccccgacgg catccccgca   240

caccaggata ggagaaattg gagggcctgg ggcctcgggc tccgcagtcg tcggaggaag   300

aacccaccgc ggggtccgca agggaaagtg aagaggcccg ggattttttcc aaagcgctgg   360

ccaggacccc gaaggaaggg gaggagtcac ctgaagccgg ggaaggcccc ttgggtgctc   420

tgccttggat ccttatgttc actgactttc gcgacccctg gagggggca aatccgcgct   480

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<212> DNA
<213> Homo sapiens

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tgtccaggga gtgtccttca ccaccacact cctcacgtcc aggcagtgat cgacggcctg       180

gcggcaccct cacagcgggc ccatagcacg gggccacaca cgtcccctga gcttagcctg       240

ggcacattcg tctgccgccg agggcttaag ccagtctgca gcccgcgccc cgtcactcgg       300

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<210> 11
<211> 291
<212> DNA
<213> Homo sapiens

<400> 11

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gtgttccgcg ggagaagcca gtgcacacat cctcccgcaa ggcggggttg ccagtgcaac       180

acaggaatcc tgcccttttt ctagaaaagc cccctccccc actttccctc caatacactc       240

acctgcgtct caacagtttc cttcttgcgc tacacgcggc cgctaagccg a                291
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<210> 12
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<213> Homo sapiens

<400> 12

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tgtccgctgg tttgtccctg cccggttcct ctccccgggc ctgtcagcct ccgcttctct       120

ggaggttcct gggactcatc tctgatccac cgtcttgcgt tctctgggcg catcgacttc       180

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<213> Homo sapiens

<220>
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gccgacgctg acagtggagt gccagaaaga gggagaggac cgtcatggct actctgcccc       120

tggtgtcacc atgcgctctc ccccggcacc ggcgaggcga aacgtttcgc tagtccccgg       180

gaggcccctc ggtcagggca gcagcatccc tgcaccctct ccgcaggtgg tctccccgac       240

gccacaggtg gccagcaggg cgcgggtggg ggcaggagcg cctctcccct gcccaggcct       300

cccgctcctt ctcggagcgc tgtggcgggg tggagagaca gccttctaca gctagtctag       360

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tccctcggtg ggcttaaagc ctcccgttcc ttctgtctca ttccttctgc tccctccccc       480

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ggccgnggcc caa                                                          553
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<400>   14

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ccaccgcccc ctagacacgg gtgaaaacct gcctaaaagc taactcaggc agtgactcta       120

tcacccgaag gggccctggg ccgcggccca agccga                                 156
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<213>   Homo sapiens

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<223>   "n" refers to an undetermined base

<400>   15

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gcggggcagg cgggcgggcg aagggagctc cggntacgca ganaacgcgg agcgccccct       180

tcccacctgc gcgagggcat cctgcccggg ggaggaaagg cgggagtccg aggcgggtcg       240

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<211> 196
<212> DNA
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gatcagttgg aactgacgga ggactgcaaa gaagaaacta aaatagacgt cgaaagcctg   180

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<212> DNA
<213> Homo sapiens

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<223> "n" refers to an undetermined base

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actgcaatta ctgcttcctc tttcccataa aactcccccт agtgtatcag aacccccaag   180

gagtttcagt aagcggttct tctgttgtct ccggctgaga ctccagggga acctcaagct   240

cacatggccc tggccgggcc cctgggcagg agcaggcgag aggtctgcgc ggccgctaa   299

<210> 18
<211> 363
<212> DNA
<213> Homo sapiens

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tctctcctct gagctgcaga agctctgtgc cctgtcccct gccacaagtc acagactttc   180

ttcatgtgtt ttacctcatg ttaatgaagg agatcttctc caggggcttg atctagtggg   240

aaacagagga gggggggatt ttaaatttca gtccgtccaa ccctgtagat ctgctgtcct   300

acagtaacgt aaaggatcac caggtaaaac gctgcttctc ccggacgccg ccccgcaagc   360

cga   363

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<211> 322

<212> DNA
<213> Homo sapiens

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tattccatta ttcctagctg aggtatccag gcggctcgga cctgctttga acactctaat   120

tttttcaaag taaacgcttc gggctgcagg acactcagct aagagcatca gggggggcgcc   180

aagaggcaag gggcggggat gggtggtggc tcgcctcgtg gcagaccgcc cgcccgctcc   240

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attaccgcgg ccgctaagcc ga   322

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<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<223> "n" refers to an undetermined base

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ggctgccagg tttctctcaa gtcttggctt aacaaaagaa agcaaattac aaaaatggaa   180

attttcaaac tagcgttcag tggtattcaa atcgacgttt gggtagcgca caggcacaga   240

ccgcattcgt gctattttgt gattaaaatg ataccaaaaa tacctccttg ctttggtttt   300

cgtcttcgaa aacgacttct ttccttcttc taatttcccc cttacttttg ggagcggcaa   360

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<212>   DNA
<213>   Homo sapiens

<220>
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gcctcctgga gacttngggg agagggatag ccggntaaag ctcctgtcct ttctataggc       120

ataagcgggt ggtcaccacg gattggggat cccgaatccc tggctccaga tagacttaat       180

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<212>   DNA
<213>   Homo sapiens

<220>
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<223>   "n" refers to an undetermined base


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cctagttccc gaggtcctnn actaggtcta gatcactggg taaaagaagg ggagcggcan       120

cacgtatggg gtaggcgctc tcactactca catctcgaga cctttgccgg cgtagggctg       180

tccggggggga acgacccgcc ttttccggta tcggttgtca tggcggcgcc cagcccagcc      240

tggttttttc cggtagccaa ttgaactaac aaccccgttc cctttaggac taatctgtca       300

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<212>   DNA
<213>   Homo sapiens

<220>
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<222>   ()..()
<223>   "n" refers to an undetermined base


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tctggactta ccanagcaat tccagccggt gggcgtttgg cagtcactta aggaggtagg       120
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gaaagcagcg agcttcaccg ggcgggctac gatgagtagc atgacgggca gcagcagcag   180

ccagcaaaag ccctcgcaaa gtgtccagct gctgcactgc cgcggggact cccacagcac   240

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<212>   DNA
<213>   Homo sapiens

<220>
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<223>   "n" refers to an undetermined base

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ctgggtgtgg ctgggacggc caaggccgcg gcttcccgcg tggggatgcg ctntggcgca   120

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gttcccgctg cctctggccg gcaggcgtcc gggctgcagg tgggccggca ggcaggtgtt   300

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<211>   625
<212>   DNA
<213>   Homo sapiens

<220>
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<222>   ()..()
<223>   "n" refers to an undetermined base

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ataataaatg gccaaatttg gacacttacg gacccaaaca gttttgctca cgccagagaa   240

accgagagca cagggcttgc gtgaagccta tctcggcaga aggcaacatt ctaataaagc   300

ccgtgggaaa acagattaca ttttcgccat gaataagtca tgcagtgaaa aatattgcct   360

acagcctgtc gactt att attatcacgt ttttcaactc ggcgtgagga gggagaggag   420

tgttcatatt tgactaggaa ttgcaggatc gatgcaaact ccagggcagc agccagactg   480

gcatatgtgg ggctctccgg ttactttctc tgtatgtcgc gggtgagagg aacagcgagg   540

acaatttagc gcaaacacac gaagggtcgg atctcaaggg ggcagcgctg ggagaaaggt   600

tagggctgna gagcgnanag ncaaa   625

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<212> DNA
<213> Homo sapiens

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atgattttac ctacttgtgg acactagatt tcaattagga aggttttttt aaacggcttt   180

ttgtaacttc gctgcaggaa gcaggtttgt ttctttttct tttcttttta agagaaggtg   240

tatttcactg gtgcaatggc ttggcacctc cggggcctgg gaggacctca gacctcccca   300

gccctgggtt tctccgtctt caagaccaac taggaagggt caagcgggga gagggagtgg   360

agggtcaggt gagatctcag agctgccccg gccggccccc gtctctttct acctcctctt   420

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<210> 28
<211> 561
<212> DNA
<213> Homo sapiens

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ggctncatcc ccgtcgagcn cagggcctcc ctgttctnct agacatncca aggagccaac   120

tcctccgcag aagttccccg cttctgctct tatttccaag cttcgcgctt tctacaaact   180

ccctgttgcc ttgactttga tttccagccg tggtgagggt cagagtgaac cccggcgcgc   240

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            ccgcagtcgt cggaggaaga acccaccgcg gggtccccaa gggaaagtga agaggcccgg      360

            gatttttcca aagcgctgcc aggaccccga aggaagggga ggagtcacct gaagccgggg      420

            aagctccttg ggtgctctcc ttggatcctt atgttcactg actttcgcga ngccccctgg      480

            aggnggaaaa tccgcgctgt ttcccccaac ttaacttcac gcggccgcta agccgaattc      540

            tgcngaaatc attacactng c                                               561


       <210>   29
       <211>   717
       <212>   DNA
       <213>   Homo sapiens

       <220>
       <221>   misc_feature
       <222>   ()..()
       <223>   "n" refers to an undetermined base


       <400>   29
       actctccgcg gtntcntggt gcctcacagg aggtggggct ccctccaccc ggtccccagg       60

       cctctccctc tgcccgagct tcccggtcct gcctccttcg cctcgcctgc ctgcccgact      120

       ctgaaccctg ctcctcttct aactaaaagt cagtgtttta tttcctccgc agtccaatgc      180

       ccgcgtttta ccttattcaa taagaagggc ttcatttatg gcaagacagg acagccaggt      240

       aataagggcc tctgcacacg cgggcccatt ggaggggcgg aactgcgaag tcttcccgga      300

       agagcttcct ggagagaagg ggaacgagcc agcgtttatt gagcatctat tatactaagc      360

       atctgcttgg cagttcacga cggtcgcatt ttttcatcct tacagcgatc cctattgtgt      420

       cgcttgcttt aaagcctcac agctcacaaa gggctgggat ttattccaga tctctctctc      480

       agatgccatc tcacttccag gtgtctctgc tgctttgaac gcgggaaacc cacgcaaagg      540

       agtgatttcc aaggccttct gtttggaata tctttaatcc tccccttatt aactggaaaa      600

       actcccacgc atccttcagg gctcagctca aatgtccttt atntctgcag ngaaactttc      660

       ccaaggaaaa ttagttacac agctaatttt agataaattg agccagttga tagaatt        717


       <210>   30
       <211>   280
       <212>   DNA
       <213>   Homo sapiens

       <220>
       <221>   misc_feature
       <222>   ()..()
       <223>   "n" refers to an undetermined base
```

<400> 30

```
tgatggatat ctgcagaatt cgggctttgn gacgccgggc acgcagtagg gaaaacagta      60

ttaaaacgcc ctacagaaaa tctcggcgaa gtccccggag aactctggtt tctaagatca     120

gctgggcgca ctttctccgg gacgtccctt cttctcggtc tcagcgcctt cctgccctca     180

gccgcgccng tnttgttttg gtggcaaact gaaataagaa atggaaatat attggccttt     240

gctgctgcca gggatgagag gttgttgacg tcggcgcaaa                          280
```

<210> 31
<211> 270
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 31

```
gnggnngnna nncggcgatg gatntnngna ganttnggtg atggatatct gcagaattcg      60

gcttagcggc cgcgaacaaa gagcgaacca aaggatgctt cgaattttta aaacggaatc     120

tctgcaccca aatgcaggac tggtgactta aggagctgcg aagtctgatt taccgggcct     180

actctcgacc tgccccccac ccccagctca ggggggacctt tttatcntga acgccagagc     240

tacnnaccaa gtcgggtggc cacnnccaaa                                     270
```

<210> 32
<211> 347
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 32

```
tttggannta nggggcgtg gcgtggatcc agtttccccc ggccaggtcn gcttcccggt       60

ctcaaccatt tcgcgctctg ctctgtccgc tggtttgtcc ctgcccggtt cctctccccg     120

ggcctgtcag cctccgcttc tctggaggtt cctgggactc atctctgatc caccgtcttg     180

cgttctctgg gcgcatcgac ttctctccat cttcgggctc actcctgact ccctcgctgc     240

cgccccgggg gtttccacgc gtgtctctaa ccgcggccgc taagccgaat tctgcagata     300

tccatcacng aantctgcag anatncatcg ncgaannnca ccgcact                   347
```

```
<210>  33
<211>  342
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<222>  ()..()
<223>  "n" refers to an undetermined base


<400>  33
gtagggcgcc gccgtgacag attagtccta aagggaacgg ggttgttagt tcaattggct      60

accggaaaaa accaggctgg gctgggcgcc cgccatgaca accgataccg gaaaaggcgg     120

gtcgttcccc ccggacagcc ctacgccggc aaaggtctcg agatgtgagt agtgagagcg     180

cctaccccat acngtcggcc ggctcccctt cttttaccca gtgatctaga cctagtctag     240

gacctcggga actaggacca gcctccctcc ttcttggaga tctgaccctc aggattcann     300

nnctttgctc acgagctcca acccnacnca tccaaannnc aa                        342


<210>  34
<211>  370
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<222>  ()..()
<223>  "n" refers to an undetermined base


<400>  34
cattgtttac tttcgtctaa acgcggtgga agcccatgga agaaagcggt tagcagcaag      60

gcagagccct gctccctctg cagccccagc tcccagcgcc ctgggctttc caggcacctg     120

tccgggtagg ggattgaggg ccgtggccag gcccgcactt tcctgctagc cgcagctggc     180

cacatgccca tctgaccctc cgagttctcc tctaaaaatg gggctgacag ccgctacctc     240

acaaagtcca caccgggctc aacccgntgc cttcctcccc aacaggactc tgccaccctc     300

cctcaggatg cctgagggcc ccganctgca cctggccagc cantttgtga atgaggcctg     360

ngggggcgntt                                                            370


<210>  35
<211>  213
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<222>  ()..()
<223>  "n" refers to an undetermined base
```

<400> 35

```
aaaatacnan taaagcgatg cttcgaattt ttaaaacgga atctctgcac ccaaatgcag      60

gactggtgac ttaaggagct gcgaagtctg atttaccggc ctactctcga cctgccccc      120

accccagct cagggacct tttgtctgaa cgccagagct actgaccagg tcgggggcc        180

gcggcccaag ccgaattctg cagatatcca tca                                  213
```

<210>   36
<211>   173
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   36

```
gacnncgggt ttgtgtgtaa cagggtcagt ccccgtatct actttgcgaa agcttcgagg      60

cgagcgtgaa gtcaagggct gcggtggatg ggggtaaaan gcctcctcnt cccactgcct      120

gcnccgtctt ggggtaaccc ctanccccca cccggngttn cnctttaatg ctc            173
```

<210>   37
<211>   369
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   37

```
tcactgtgcc gggtctctcc tncccggtcc aactcccttta cttgtcctca tctctgtccc     60

caaggtccgt gacccgcgga ggtgatgggg gggataggag agccccaggg accgcagagg      120

tgacacaatc gcccgcccgt cctccctcgc tgggagccga ttcagcctgt gccgagcctc      180

tcccttcgcg tgcctctgcg cacagcggtg gcaccgcagg actccgggtc ccccccggct      240

ctccatcggg aagccggcaa atgcgcttcc tcagccagac cgcggcgggg tggggcggg       300

gggggcggaa gttgaaatac tgggacagaa acacctgccc gtcccaaggg acggaaaact      360

ggatgccaa                                                             369
```

<210>   38
<211>   123
<212>   DNA
```

<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 38
```
gtcccttcgc cccgctttn ctttccccna ggtcccagcg nccgaaccgg cggatgtcca   60
cgaaacatag ggcgagccgg gggccangcg gggccgtgta aaatctcntg tggtcatttt   120
gtg   123
```

<210> 39
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 39
```
ctagccctgg aagagaatcc gaggctcagc cntgctgcag cacccaggac actgcatccc   60
agcacctgcc cgaagatcag cccaggaccc aaaggaaagc aggctccaag ctccccggaa   120
gccaaggaaa ataggaaaac atatcctgcc ccggggacac cttctggaac tatgaccaca   180
tgcacttgac cttccggaac aatcaccgca tgcacctgac ctccccggaac tgtcaccacc   240
gcgcgcacct gacctcccgg cactgtcacg accgcgcgca cctgacctcc cggcactgtc   300
atcaccgcgc gcacctcacc tcccggaact gtcaccaccg cgcgcacctg acctcccggc   360
actgtcacga ccgcgcgcac ctgacctccc ggaactgtca tcaccaggcg cacctgaccc   420
cccggcactg tcacgaccgc gcgcacctca   450
```

<210> 40
<211> 593
<212> DNA
<213> Homo sapiens

<400> 40
```
ggaccaagct gggtaaactg ccgacagctc cattgggcag catgtccacc cctgatgacc   60
aaatcccacc aaacgtgcag ctggcactcg gccgcctttg tttccttccc ctagaataaa   120
actccgctgc tttcccacgt tcctggagca gcagccggaa taaagcgccc atggccttgc   180
cctttgagtc tcggaggatg tttgccactc caacaatgga cttttaaata attcaggggt   240
caaaaggcgt gtgtgtgggg ggggagaaaa gttacaaatc agcacttgaa accgaacaca   300
```

```
          aacaaaaatc aaac   tcc gaactaatat aacaaatcaa aactttgatc tttagaagaa      360

          aacttcaacc ttaatgcttc caggaggaaa gcagaaagga taatgactga attgtgaaaa      420

          cgagccaaaa tgttccacca ctgatgtcac acacacctat gactccctgc acagatccac      480

          ggtcccgggc gctgaatccc cgcaaccctc tgcgcccaca gaggttaaac tctcgctgct      540

          ggcgacttcc gcttcctggc ctaaatctga cacgcacgac tcccccgcg gca            593


          <210>   41
          <211>   457
          <212>   DNA
          <213>   Homo sapiens

          <400>   41
          accaccaacc aaatagggcc tttcctgtta acgaccacgc ggcaaggggg ccgggccctc       60

          gcacgcctcg acggcctccc ccactccaaa gggactccga tttcgcagga tctcccgcct      120

          cccgcctctg ctcccaacac cctacgtttt tctcttcctc ctcatttacg tatttacaat      180

          aaaacagcga agctgcacag tctgtctcta aatcaaacgc ggttaccatc aaagcctcag      240

          actctatgtc tcaaccgcaa aaggtctgac aggaaatcaa ctcgggagtt tgtcaattct      300

          ttaaactcaa agctctgtta acgaaatctg gatctttcct cgctccccac ctgcctcccc      360

          tgacaggaga atgactgtaa aaggatcctg tcgtccccga aagtcagcac caagcacttc      420

          acaaattgtc aaatctcaaa agcttacacg cgcggca                               457


          <210>   42
          <211>   211
          <212>   DNA
          <213>   Homo sapiens

          <400>   42
          gcctgacctg aatgacgcgc atgttgaggc cggtctcctg cgccagctgc tcgcggatgt       60

          ggcgggtggg cttgggtgta gcagcgaagg cggccttcag cgtctccagc tgcttggctt      120

          tgatggtggt gcgcggtccc cgccgcttgg cgcccaggtt ctggtcgtca ttctcgttgc      180

          tacccgcttc cttgtccgac acgtcggcgc a                                     211


          <210>   43
          <211>   141
          <212>   DNA
          <213>   Homo sapiens

          <400>   43
          aaatcatctc cggggggccca gcacggacac gctccagacc cgtgagttcc ccagcgccgt       60

          gccgggaggt caggggcgct gaaagaagga agaattcagc cacctctcag catccctgtt      120

          acctcgagga cgcgcctctc a                                                141
```

```
       <210>   44
       <211>   559
       <212>   DNA
  5    <213>   Homo sapiens

       <400>   44
       acccactttc cattaacact aaataaaacg catccatgga tttcctctcc attccgaggc        60

 10    aacaggagtg catggcacat tgccctactc ccctgaagct cttcgctaac ctaagactcc       120

       agggtgagga agttagctgg agctttttaa agtgcatctc caaagagaat tttgctcaca       180

       ccatgagagc ccccaagaaa caccagggcc cccttagatg ccggagacca cgccctccag       240
 15
       gaataagccg caccctctgc ccagcagatc cttgcgcgag tagccctctt tccctggggc       300

       taatcaagtg catgccacat gtcaccactc tcagctggca attcttcctc agaggcgcag       360

 20    actttcacgg aatccccagc aggggggggtt aagagattca ggggaggccc cgcccgtgcc       420

       ttccacaaaa gtcgctttac cgtggctcgt gtcctgcggc cccaagggggg tagcctggga       480

       cgtgtattgg gagggcatag aggctccttc caggacaagc tgccagcctc cagtgggcaa       540
 25
       ccatgtgaga ggcaaaatt                                                     559


       <210>   45
 30    <211>   433
       <212>   DNA
       <213>   Homo sapiens

       <400>   45
 35    gcgaacagca caaaggcttc attcctacga gagattaagt tttagagcaa atggacacga        60

       tcgttaaaga atttgatatt tccatgtaaa ctgcattagc aggttatgcg atccaaactc       120

       acaggaacaa ctccaactct cggccatgcc ctatttcatg tctagatttg tttaaccgac       180

       ttacatcata atccaagaat acgaactaca gtatattctt acagcaaagt tattccttaa       240

       aagcaaaacc gagccacctt tgaaaacacg cacacacatt atccacggca ctaaaacccc       300

 45    agtcttgacc gagaaagacc aacaacttgg gggggaagaa aacaacttca gagccagagc       360

       tcccaaagca gaaagcgctg gcggctgaag ggcacacgag gttccgctcc cgggcgaacg       420

       ggcggcgtcg caa                                                          433
 50

       <210>   46
       <211>   487
       <212>   DNA
 55    <213>   Homo sapiens

       <400>   46
       cccttagtat tccatgagcc accattttcc ccacgatccc tccagcctga cgatcacat         60

 60    cctactgtgg accacgactc tcccagcagc gggcgtttaa tatccagtta gcaggttctc       120
```

```
accacccccct cgctgg   cg aatacagcat ctgcaccgag ttcccgaga   cgtcaaccc      180

agcaaatccc ttaattggtg gacatgaaaa tccagggctt tgtgctgtaa taacagagtc      240

ctggggggcct ggggagtttg tgccgcttgg agctcaggtt tctgggacag aggctgagcg     300

cagggcaggg aggcaggtct cacctggcac ctcccagagt cctcgccgag cagatggaag      360

cagaggctct cgcgcccggc ccccgccggg agacctctct ctctttccct cggcctgctc      420

tgccctctcc cgccttctcc ctgtctgatc cttctctgct gtcatgttct ttgtcctcgc      480

gccccga                                                                487


<210>   47
<211>   403
<212>   DNA
<213>   Homo sapiens

<400>   47
gtcatataag cacaaccatt cccagggcca ccctggatgc atcagatcag tccccccact       60

ggtgaccaca atggctggct cagagtgcct ttgaacagac aggagaaaca gacttcttgg      120

agggagggac cttcccacag ggaatggcca aggagctagg tcttcagggc ttgcatggcg      180

tggagtgtgt gctcaggtgc acagtgaagc aaacctgagg ggacttgggc cctgcgtcct      240

ccagcacaca cgcacccttt cgccgtcaca tccggggcac ccacccgtgg aatatgtgag      300

ccgcacttgg ccagccacga gttccagggc caggaagtcg tgcttctcgt tcaggcgccc      360

gttgtagaag agcagcccgc tctgctgcac tgtcgcgtcc cga                       403


<210>   48
<211>   155
<212>   DNA
<213>   Homo sapiens

<400>   48
ggcgtggaga ggaggggggca gaaactcagc cgcccctacg tttgctaaac tgcgtccgcc      60

aggggcgta ttttctaaa acgcacaaga cgtttcgtgg gttatcgatg gtctcttgag       120

cctccttgac tgatgggggat tgaccgggcg ggata                                155


<210>   49
<211>   256
<212>   DNA
<213>   Homo sapiens

<400>   49
tctactgagc ttttctttaa gtggaaccag aagtgctggg atgagaggga aaggatggga      60

gtgcgtccaa aggtggacag caggtccccca tccctggtgg gagtgagact ggacggcatc     120

ccccggaaag gtggtttggg ccttggacaa ggctagaggc aggagtccat gatgcagaga      180
```

```
tgacacagtg cccc    gcg tgtgagtcca cgaaggtcac tactgagg    ttgtgcttgt      240

aaaaggccgc cccgca                                                         256
```

```
<400>  50
tgcggggtcg tggggaacc ggcgggagct gttcgctggc cggcctcact ggagtaggaa       60

ttttagatga aactgagtcc gtttctcctt gaaggcaggc agtattctta gatctactat      120

tcatttaaaa agaaggaaaa gaaaaaaaaa tgactgctac ttactgagaa gaaaatttct      180

gttctcctcc gattccgctg atcccgcttt atccgcgcac ctca                       224
```

```
<400>  51
gtggctggga cggcccaggc cgcggcttcc cgcgtgggga tgcgctgtgg cgcagagctg       60

gtcccggcgg ggccaggcgt ttgtgggcgg gtgacgggga tctagggctt ccgctcgtga      120

ttcctcttgg gctgtctttc cgggtttgga ctcgcctgcc cggctgtgtg cagggttccc      180

gctgcctctg gccggcaggc gtccgggctg caggtgggcc ggcaggcagg tgttagcggg      240

aagggagcac aggtagcgag gtgggatcgg cgacctggct agggtgtcgg cagaatggaa      300

tgcgcggccg cta                                                         313
```

```
<400>  52
tacgttgcgc attcattctg ccgacaccct agccggtcgc cgatgccacc tcgctacctg       60

tgctcccttc ccgctaacac ctgcctgccg gcccacctgc agcccggacg cctgccggcc      120

agaggcagcg ggaaccctgc acacagccgg gcaggcgagt ccaaacccgg aaagacagcc      180

caagaggaat cacgagcgga agccctagat ccccgtcacc cgcccacaaa cgcctggccc      240

cgccgggacc agctctgcgc cacagcgcat ccccacgcgg gaagccgcgg cctgggccgt      300

cccagccaca cccagcgcgc cttctccagg gtcagccagc tgcggctctg ccgaagcgct      360

cctccgctcc tttctcgcgc cccga                                            385
```

<211>   307
<212>   DNA
<213>   Homo sapiens

<400>   53
aacccggctc ggttcggcaa ggttcaggga gacaaggtag agaaggctgg ggtgagcaag   60

aagtcgggcg gccgatcgtc agggccacga gcctcgcctt gccttcttgg aatcccaccc   120

aactttaaag gcccaaagat cctgaaaatt ccgaaagcga aactgcgggc tggtctccag   180

aagtttgaga acggtctccc aggctttcca gcgtcgtccc gggattctcg gacaccacaa   240

acgccatcaa ccacgagcac cggtgtccgt ggctattgcc ccgaatggtc cccatccgcg   300

tccccta   307

<210>   54
<211>   182
<212>   DNA
<213>   Homo sapiens

<400>   54
cgatgtcgaa gccgtttgga gggaacagcg gtttccaagt tcctgctgac ttgagaagcc   60

tctgcgggtt tccgaatctc cggcgcactc ctgggcgcgc tgcgggagct gtagctcagc   120

cagccaggga gtagcggctt tcatccgccg ggaggagtct ttcgagttca atcgcggggg   180

ca   182

<210>   55
<211>   523
<212>   DNA
<213>   Homo sapiens

<400>   55
tcgggtttga tccgccccaa ccaaataggg cctttcctgt taacgaccac gcggcaaggg   60

ggccgggccc tcgcacgcct cgacggcctc ccccactcca aagggactcc gatttcgcag   120

gatctcccgc ctcccgcctc tgctcccaac accctacgtt tttctcttcc tcctcattta   180

cgtatttaca ataaaacagc gaagctgcac agtctgtctc taaatcaaac gcggttacca   240

tcaaagcctc agactctatg tctcaaccgc aaaaggtctg acaggaaatc aactcgggag   300

tttgtcaatt ctttaaactc aaagctctgt taacgaaatc tggatccttc ctcgctcccc   360

acctgcctcc cctgacagga gaatgactgt aaaaggatcc tgtcgtcccc gaaagtcagc   420

accaagcact tcacaaattg tcaaatctca aaagcttaca cgcgcgggca ctccggaaag   480

gctgtgggga ccacccaaag caccccctc cacaccgcgg gca   523

<210>   56
<211>   795
<212>   DNA

<400> 56
tttactttct tccggctgac gtccatctcc tcaaatttct caggaatgtg gggaagctcc   60

tagccctgcc tgcctttcta gagggcttct tggatttgca gcttctaaca agttgctctc   120

gccacggaga agctgttatt atgacaaaat atttggggca ttatcaaaat cacacaggct   180

gctgggctgc tgtcggtttc tcgccagggc cagtaagcag ttacatttgg agttgctacg   240

tgttgtttgg gggccgggct gtggagagtg actgagccag tattttcat ccaaaattct   300

gcaaattgaa ttaaccacaa ttctagtctc acctcccgtc tttaaaaaaa taagttgaag   360

aaaaggtaaa tattagagat aaggcagcat ctagtgactg cggagaggca caagctggtg   420

ggcgagggtt gggggagtca gcaaagccct tcaaaacctc cccgtttaat tttctggctg   480

tctctgcatc ctgttgccag aattccaaat gcttggagtc atttanaggt gcgagaactc   540

aaacgtcgtt ccacttggaa aggggaccgt ttaacgttaa attccattag cacctaaatt   600

gtttcttaaa gacatccgct cagacacagg actcgaaagc gagcatttca tgcaaataaa   660

tttctcaaat tttaaacctt gttaaaagct tgtctcgcac ctcggctccc tccccttccc   720

cggaaganaa caataggccg ntggcgcatc cccacttcgg antaaatatt gacgggggaa   780

gttgctaaaa acatc   795

<400> 57
gcctgtgtgt aggggactgg aggtggggga acctgttctt ttcttgtgtc tgatcctggg   60

gctcgcttcc tgggtcctag aacagcagcc aggacggaag aaactgttca cgttgcaccc   120

ctttctctaa gattcccagg ccaagagtag ctgcagaagg tggccctgaa tctatggcct   180

ccttctctct gcctgacccg gctagtggat ccggagaggg gaccagggag agctcctccg   240

agcaggggtc cttcgggaga cagagagggg tccaggctga gagaactctt caagcatggc   300

gagtctgcgt tatagaatcg ggcgggcggc tcaacttggg ggaagcacca agaagagctg   360

ggcgacctgg agcgcagaac cggctttggg gagccacccg gcggggcagg ggtagcacgg   420

agcccgggcc gcggccca   438

```
<210>   58
<211>   611
<212>   DNA
<213>   Homo sapiens

<400>   58
gcttccccct tcctttctcc cgcgctgccc ccttgagatc cgacccttcg tgtgtttgcg      60

ctaaattgtc ctcgctgttc ctctcacccg cgacatacag agaaagtaac cggagagccc     120

tacatatgcc agtctggctg ctgccctgga gtttgcatcg atcctgcaat tcctagtcaa     180

atatgaacac tcctctccct cctcacgccg agttgaaaaa cgtgataata atataagtcg     240

acaggctgta ggcaatattt ttcactgcat gacttattca tggcgaaaat gtaaactgtt     300

ttcccacggg ctttattaga atgttgcctt ctgccgagat aggcttcacg caagccctgt     360

gctctcagtt tctctggcgt gagcaaaact gtttgggtcc ataagtgtcc acatttggcc     420

atttattatt tcgatttgaa ttttcagtaa atacaaccac ccctttcccc tcccccagaa     480

acagtcatgc ttagagaaaa ttatagcaaa acctccctgg aagcctgaag gttttggatg     540

actgagaggt ttggtttggt ttctctttct tttcattcaa aacggatcaa actccctggc     600

tcgcgtcccc a                                                         611


<210>   59
<211>   291
<212>   DNA
<213>   Homo sapiens

<400>   59
gagtttggca ggccccggat tccacaaagg agtaggcgcg gccagccgcc tccagccctg      60

agctcagtaa attcggtgtc ctgaatgctc ccttcctgtc cttaccactg cgagctctct     120

tgggacagct ttctaggttc cactgcgacc tactttccgc tccctgagtg cttctttgct     180

gaaactgcag gcgaaaagat ctctttccca gaccgcagcg cactttgaga aggggctcaa     240

agtcgcccgc tctgaatccg gcaccggcaa ataggagtag ccgcatgcgc a              291


<210>   60
<211>   226
<212>   DNA
<213>   Homo sapiens

<400>   60
gaaaacagat aaaacgccct acagaaaatc tcggcgaagt cccggaggac tctggtttct      60

aagatcagct gggcgcactt tctccgggac gtcccttctt ctcggtctca gcgccttcct     120

gccctcagcc gcgcgcagct ttgttttggt gacaaactga aataagaaat ggaaatatat     180

tggcctttgc tgctgccagg gatgagaggt tgttgacgtc ggcgca                    226
```

<210> 61
<211> 580
<212> DNA
<213> Homo sapiens

<400> 61
ctgtgatgca ctcggcggat ctcggtggca gctgcctcct tcatctccag tgacgcctgc   60

atgctgtcct aggcagtgtg aggagtgaag atgagatttg gcgcatcttt caacggagtc   120

tgagcaaagc taaagggctc cgattcgtgc aagccaaggg ctgcccctcc tatcctgtcc   180

tccttgagga cctgtgctaa ggctttctca tccaccaggc caccatgggc tgcgttcaca   240

aggaatgctc cctgtctcat ctgctttata gtaaagtcat tgacgaggtg gtggttatgt   300

tcattgagat tgctgtgcaa cgagacacag tcactctgat acagcaaacc ctgcagggtg   360

tatcagggtc ccctctgcat gccctgggac ctctctatct tgtcctacaa gtaggggtca   420

taaaatacga cgctgaatcc aaaggccttg gctcaaactg caaccgcctg cctcatgcaa   480

ccgaagccca tgaggcctag cgtcttccac gaatgagggc cactcccatg gccacctcga   540

gaatctgctc cacgctctga acccgcgcac ctcaagccga   580

<210> 62
<211> 633
<212> DNA
<213> Homo sapiens

<400> 62
gcccaggaga agccctccac ggtgggcgtc ctcctagaca accagcaccc cctgcaggca   60

ccctcgtctg gcagaatcag ccctttccca cctgcaggcc cttctcagcg cctctgactt   120

cccacacaca gcacaggtta caaactggtc cctggcagtg cactctagcg ggcctctctc   180

acaagttctg cgggcctcgt ttcatggaaa gcgggttgtg gattcctgct gcccttggat   240

ggcccctgcg cacgcacacc tctgagcggg cactgagcga gcgtggggag ctgctccctg   300

ggaactaggc aggagctttt aaacaccctt acacacagcc attctgcggg aatacatgct   360

ttcccggtaa ggcttttact gttcattcca ggtaaattgg aagtcgcaca ccccaagctc   420

caaatacaac tcgttagctg gcaggtctct gaagccaatt ccttctgagg aaaatggaga   480

taatagcagc taccctccca ggtgactggg ggagaataaa gtggctgtgc atagtggtgt   540

ttgcagctgg tggctgctat tatccttcat tacagcttgt aaaaagggtg tctaggccat   600

ttacacacag ataggccggg tggggtaagc cga   633

<210> 63
<211> 703
<212> DNA
<213> Homo sapiens

<400> 63

```
gcctatgaat ggatttataa ttgctttatt tttgtcccat ttagacagaa gtcagagaca      60

gaggagagaa ccaaaaaact tggatgtttc cgtaaactag attcgtcaat cctcgataat     120

tgaaagtagt tccagtatgt cagccaccgg ggttccctgg ggagctaacc agtcctgaag     180

gaagtatgaa gaggaagagg aggtcttcag ttaaggggat gaatttgtgc agtcctaagc     240

cctgcaaagg tgctggaggg aggaagaagg gcaggaaata aaagatggaa gaaaatttgt     300

tttttatcca cttagagttt tatctttaat gatgggaaac agtgctgctc tcaggaaact     360

cagtgtggag atctaggagt tcacggttca tagtccatta ggagcaggaa aaggatagag     420

gacatttata aagtaacatc caagtccaaa gtaaaatggt ataaattgtt tcccatgata     480

aaggctggct gagtaggtca ggaaaggtct tgtcagacca tatgtgctgt ttcaggctgc     540

ttcaaattct tttaggacag tggtggatat gagtgaagac ggggcaggca ggccacatct     600

cttagaagag gaaggtgatt gccacgtctc cttcctccat gctgatggca aggcgtgcgg     660

gctgtgttct cttgcagcca gcgtcccatg ctcggcggcc aaa                       703
```

<210> 64
<211> 420
<212> DNA
<213> Homo sapiens

<400> 64

```
gtgacgtgcg gaatacacgt gatgtcgggg acaggagcgg gctgaagagg gcacgatccc      60

acgcggaggc caccctcac ccggggtagg agcccgctgc acttgctgtc gctcagcccg      120

ggcgctgcac cacggcagcc gccatgctgc ttaaagccgg tcatgtgacg cgggagccag     180

ggtggaaggg gtccccgcgg gcaagccttc gacacgtgac ctgccacccg actacggaag     240

cctcttgggc gttccgcccg ggctcacatg tcatgtgacg gccggccggt cgccggagta     300

accaggaact ttcccagacc ctgcggtccc tggagcgtca aaaagagcgt ccccgtgact     360

aggtggagtc gcctgccctt ccgaatctca gctgtcttat ctggaacccc cacgcggcaa     420
```

<210> 65
<211> 496
<212> DNA
<213> Homo sapiens

<400> 65

```
gcgctgcacc aatttagagg gtagaaaaag gagttagaag caaagaggaa aaaataaata      60

aacaggcaac aaaaacccaa cccagccagc ctgagccatt tgcattagtg ttcatttagg     120

aaattagcag acgggaaacg ctggggagtg gagtgggccc cggccttggg gactgcagag     180

cccgctcagc cctgggtggc tgggcccaca tggctgtcgc caggagcaca ggaggaccca     240
```

```
gaggtggccg aggga  ctc gccgggctcc ggtatgggtc ctggccccct acaggtgcga     300

gcctggccca gtgactgtgg acgctgtggg agagcaggcc tccgatacgc agggctggga     360

ctgctgacct ggaaggtggt gccgggcgtg tctggtgaag gcgccgttgg cagctagaga     420

gagacggcgg atggggtgac gccataaccc acggtcccag ttttgaggct tgacggtgac     480

ggaaaaggac gtcggc                                                     496
```

```
<210>   66
<211>   637
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base
```

```
<400>   66
cgccgagccg ggatgagcaa ggcttcctgg aggagagggc cggcctgagc ttggaaggat      60

ggggaggagc cactggctac aagggtgtag aggtgagaac cagtgtgacc tgcccatcgc     120

tggtcgtctc tgggtcattc agctgaaatg gcatctctga gctgagagga gtgttgcctg     180

taaggagcta ggcatcagcc cccagtagag gggcggccca ggcacagccc atagccgcag     240

acttagtgag tctagctagg gagacagtag aggggccaaa atgaggacac aggtcaccaa     300

aaatcctggc caggtcctgc cactacctgg ctcagcgacc tgcccccccg agcctcagtt     360

tcccccattg gtggaatgga gtgaggaaga cgcgcctccc ggggctgcga tggagaattg     420

agtcagagtc tggggtgct gggagggctg gggagcagcc tccctgagcc tcagtttccc      480

tggctgggga atgaggacct tgctcgtccc ccctcataag gggaagctgt caggaaagtg     540

ctttcaacgc tgagccattt cccagtggtg cacaattagc tttccagagg attttggtgg     600

attctagagc tngagggctg ggggatnggc ggccaaa                             637
```

```
<210>   67
<211>   595
<212>   DNA
<213>   Homo sapiens

<400>   67
gccctgagct cttgagggcc tctgcagttc ttgggacaat tctgggacta tatctttggg      60

ccttggtgag atctagaggc tctaaagtct ttgggagggg tcctgagctc cgtggacggc     120

agggtcttgg gcactcactt gcattcttga ggggtgtgtt tggcctcgtc cgtgcaggtg     180

tagaatttcc cctgtagaga ggatgtctgt caagtaggtt caccttcat cacactcccg      240

cccagacccc tgcctggcat tccctccagt gtttgcccca ccttgaagag ctgcaccccg     300
```

atgcaggcga acataaattg cagaagtgtg gtgacaatca tgatgtttcc gatggtccgg   360

atggccacaa atacacactg caccacatgc tgcgggcacc caagcatatg gctactgaac   420

actacaggcc acagtggtca tggggcaggg actctggtca tagatgcagc tgagggactt   480

gggctgggga catgtggtga tgggtcaggg atgtatggtt agcaacatgt gttcaagagg   540

cagtgttatg ggctagagac gtgtgggcat ccaccaggaa taagtgtttg ccggg   595

<210>   68
<211>   580
<212>   DNA
<213>   Homo sapiens

<400>   68
gagtcaggac ggaggacgcg gcaggtcaca gagcccacca agtccgaagc tggaagttca   60

gattctttga tattcaaagg tggatcatct gtgctttttt tttttttatca gtctctcact   120

tttatccat catctaattg tgacagctta tttgcctttta taccataaga tggggagtag   180

ggttgagatg aaatccaagc atcgtttccc ttccccgatg gtcgcctccc tggggtgaga   240

cgttcgacgt gtcagacttc accaagagca tctcccgcct cggtgcagta atgaacttgg   300

aaacgattta ctccggcact tggttcctgt ctccataaat gcggctgctt taaagggaat   360

gtaaaaaggg ctgtaaattg gtattgattg ccggtggtct tgaagaaccc caactgagga   420

ttgaccgttc cttggagtga aggctccgca ttcagacgcc tttcgcctta cgtcatcata   480

attgagaagg gaaaggagac gtgttagttt cagtctgatt atttaccatc aaggcataaa   540

cacttctcag aggcagcgga acccattaaa ccggcccgta   580

<210>   69
<211>   589
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   69
acacgggggg caacctcttg cacctggctc cctgccctcg gtgccacgtt ccagggttc   60

ctccacgtcg caggctgtgt cagcctcgct ccttccactg cagaattgcg gtccacagcc   120

tggatgggcc actctccatg tatccacctg tccctccgtg gctgctgggc tgagtcgctt   180

ctgatgctaa caagaggcgt ccggctggac taaggccccg gaagctgaga actggagggc   240

aggtgcgggc atcgggcaga gcagctccag caggcaggac ctggggcctc caccctgcac   300

```
ccctgtgccc cgcg    ggc ggaaccgccc cgaggggagg ctgtcaccac ggtgacaggc      360

agccccacgc gagcctgaga accctcagcc cacctttttc tgtaatcaca gcaggcatct      420

ctccggcaag tcaatccagt tccagctggt gctgcctccc ttgcctcatg ggctttattt      480

tagaactctg agcaataata aaaaagacgc tacccgctac aatagatgtg gcagagaatc      540

tggctcttca cttcatcana gatcaccctg aaatgatggt tgttgttaa                   589
```

```
<210>   70
<211>   748
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base


<400>   70
gctacatctn ctctacattc taactaacac ttgttatttt ctgttttttgt ttgtttgttt      60

ttaatagcca ttctagtagg catgaagtgg tgtttgcctg ctttttttga tggaggtgga      120

ggaatagggt ggaattggtc cttaaccatc aattaagctg ggggccttag acctctgtga      180

attggctgtg acaatagcta aaggaggctg ctacctcata ctgaagagat gtttcctaag      240

tttgtcaccg gagagggcac cgaaccaact tattgtcttg gagggaagaa gcagcaaggc      300

agaagacttg aacttctcag agaaaaaac agtctacaga cttcatttta tgctgtcctc      360

acacactact gaaagctcta ccctggggac ctggcttgac ttctaaccta cncctgtgtt      420

atttaggaag agctcccagc tgctctgagt ctcagtctcc caatcagtga aatggaggca      480

atagcacctg cctggctgca tcgccccaca gtgctgcaat gagcatccaa cgagagaaag      540

cttgtcacct gtgttgcaaa ctaagttaca caaatgcagg cagtagcagc tagaagaaaa      600

tggttgggaa tctgaaaaga attaaagccc cccatgaatt tcttctcacg cctcctccaa      660

aagccaggga ctgcttcacc ccgcctccag gactgctcgc tccagcattt ccggcagctg      720

ctgacagaat gtatgttgcg gctgtccc                                         748
```

```
<210>   71
<211>   599
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base
```

<400> 71

```
gatgactgtt gcccgagctg aggccacgac ccaaccccga ggaagggaga acagcttccc      60

atgaagggca tggctgctgc cccataatcc cagggcagga aataaaggga tcttggacta     120

ggcaatcaaa ggacttcctc tccctctaag gccaaggagg aaatgtggct gggactccaa     180

gctctgtgga tgcctggagg tgccagcagc tggggatcag ctggccccac ctgcagagcc     240

agccagtggt ccccctgcat ctccaaggtt gggtctatgg gctccaagaa caggtgtttc     300

tcagggtaac ctcagcccct acaacttcaa ccaagagagt gaaggggagc agccctggag     360

gccaatgagg aggggggatta gtggtcactg atgacaaaga catccctgtc cccagagcca     420

gccccttgtg agcagaagaa tggctgccgg gcaaaaggac ctgctatgcc ctccccatac     480

acatatcatg ncacctgggg accctctgaa taacaggggg cngctttaga gtggcttnat     540

taccaacaag aggcccagaa gggctagagc acacgatttc atgntcggcc gcatgncaa      599
```

<210> 72
<211> 614
<212> DNA
<213> Homo sapiens

<400> 72

```
gtgcgctatc acgactgttg cccgagctga ggccagaccc aaccccgagg aagggagaac      60

agcttcccat gaagggcatg gctgctgcca ccataatccc agggcaggaa ataaagggat     120

cttggactag gcaatcaaag gacttcctct ccctctaagg ccaaggagga aatgtggctg     180

ggactccaag ctctgtggat gcctggaggt gccagcagct ggggatcagc tggccccacc     240

tgcagagccc agccagtggc tccccctgca tctccaaggt tgggtctatg gctccaaga     300

acaggtgttt ctcagggtaa cctcagcccc tacaacttca accaagagag tgaaggggag     360

cagccctgga ggccaatgag gaggggggatt agtggtcact gatgacaaag acatccctgt     420

ccccagagcc agccccttgt gagcagaaga atggctgccg ggcaaaagg acctgctatg     480

ccctccccat acacatatca tggcagctgg ggagccctct gaataacagg gggcgcttta     540

gagtggcttc attaccaaca agaggcccag aaggggctag agccacacga tttcatggtc     600

ggccgcatgc gcaa                                                       614
```

<210> 73
<211> 552
<212> DNA
<213> Homo sapiens

<400> 73

```
aagcgcccac agatggccaa gcatgtggag gagagcacaa tattttattt aaatatccaa      60

atacgaacac attcccgcat ggcaccaaca gccgcctgaa cacgcccgat gccggcttgt     120
```

```
         gctttttccg ttttg  tag aaatttgggt tgcactaaat tctcagctga atgaagatga        180

         gaaggggctg gcagaggggg tggctccagc tctctgagaa cctggctcct tcccgggtgg        240

    5    cagggagaga tggcccctgg ggagacgggg agggtgcact gcctcatgcc caaaccacca        300

         gcttctagtt gagaaatcag aattttctct gcagaataag gaaaaagcat tgtcaccatg        360

         attcacgtgg agctggccac actcaggaaa ttcaatgggg tcccacaggg gctccgaggg        420

   10    ggaaggagag ggcctgggac atgcccctcc agccatcatg gaacaggatg ggcagggccg        480

         gccctcactg ctctctaaca gtgaaaagcc acatctccac tttggaaaac acaggcatgt        540

   15    gagagcctgg gg                                                             552


         <210>   74
         <211>   450
   20    <212>   DNA
         <213>   Homo sapiens

         <220>
         <221>   misc_feature
   25    <222>   ()..()
         <223>   "n" refers to an undetermined base


         <400>   74
   30    tggaggcttc gagggaagtg aggttccctc ggacacccta gtgggaaggc tccacgcggt         60

         aatggaacca cgctgtgaaa cctttgcctt tgggtgtcat ggtggaagca aatcttagaa        120

         gacatttaat ttaaaaaatt cagtttaaa aaatgttgac ttaaaaagca gttttgaaaa        180

   35    acaacctgga attagcctga gatcgatgcc aactcttagc agtctgtata ctaaacacag        240

         ttaaacaact gtagctgctg caagctgga acctttttgt aaagaagcac ataaaaagga        300

   40    cagaactggt ggaaggtgca ctggtctttc cacatcgcca ccaggcgttt tgaagcgtgc        360

         tgctgacacg ctactcanat gcttctggaa gccaaacaat aanaaaaanc cccattgttt        420

         cccttgctgg gttttacccn ccatggtgga                                         450
   45


         <210>   75
         <211>   432
         <212>   DNA
   50    <213>   Homo sapiens

         <220>
         <221>   misc_feature
         <222>   ()..()
   55    <223>   "n" refers to an undetermined base


         <400>   75
         ggacaatgag gaggggggtgc acgtggaatc cccacggata ggccggacgc cgggcaggag         60
   60
         cctttgcagg ggtgcacagc ctcctctgga agccctggtc gctgcctggt gcctgctgca        120
```

```
            ccctgcgggc tccgcagcgg tggagccagg cctgaactgc ctgctcttgg ccccgcctgc      180

  5         ggccctctgc cctttgtctt gcccgtgggg cccggggcct caagctggcc cggggttcct      240

            gaagttagct gacgatgggc tggcctctgg ggctgggtcg tgggccttgt gcactggccg      300

            ccacgtcacc agcgccaggc ctacccgcgg tgctgctgga gacgcgggat gcccgggctc      360

 10         gggctgtgct ggatcccctg gcgctgcgaa ccccgtaccc ctttccaatc gcgggcncgg      420

            nttaaagccc ga                                                         432


 15         <210>   76
            <211>   501
            <212>   DNA
            <213>   Homo sapiens

 20         <220>
            <221>   misc_feature
            <222>   ()..()
            <223>   "n" refers to an undetermined base


 25
            <400>   76
            gacgagacct agccggcncc atgcgcgcct tgagcctggc gaacagttcg gctggcgcga       60

            cgcgcctgat gctcttcgtc cagatcatcc tgatcgacta gaccggcttc catccgagta      120

 30         cgtgctcgct cgatgcgatg tttcgcttgg tggcgaatgg gcaggtagcc ggatcaagcg      180

            tatcgagccg cccgattgca tcagccatga tggatacttt ctcggcagga gcaaggtggg      240

 35         atgacaggag atcctgcccc ggcacttcgc ccaatagcag ccagtccctt cccgcttcag      300

            tgcaacgtc gagcacagct gcccaaggaa cgcccgtcgt ggccagccac gatagccgcg      360

            ctgcctcgtc ctgcagttca ttcagggcac cggacaggtc ggtcttgaca aaaagaaccg      420

 40         ggcgcccctg ccgttgacag ccggaacacg gcggcatcag agcagccgat tgtctcgttg      480

            tgcccagtca tagccgaatt c                                               501

 45
            <210>   77
            <211>   826
            <212>   DNA
            <213>   Homo sapiens
 50
            <400>   77
            gcgccctgtg gggatgacgc accatcctgt ttgtttgcac caagtcattt atctcgtgca       60

            ccccaggggg ccgtggtccc tgccgggcca tcatgtctgc ttcccttatt tgggtttttct      120

 55
            gccccctcac ttcatttctc acttcgcttt tcctccttat ccctttgcag tcttgctttt      180

            gggggcattg ctcagccagt aatttgaggg acacctcgtg gagccctagt gtggagccgt      240

 60         cagagcctgg gtaggattct ccgtggtgag gtgctcaggg agacacagga gcattccggc      300
```

```
gcctgttcct tgtgccaatc cgcaagtgtc tgcagtgaga ggcatgggtc ccatcttgaa        360

tgccaacaat gtggcaccca cacccactt  gatggggccg agccacagct ggccaggttg        420

accaccatgg acgtgccaga ggcatccgaa acccagctct tgcccagctg ttccactgcc        480

aactccagcg ttagcaaagc agctctccct tgctttgtct tctacagcag agaacagatt        540

aaaagagaag ctgcaggcag agaaatgcct cttggagcca gatgccccaa aggatctctt        600

tgaacaaagg gttgctcagg tcagcgttag ttcctggcat caagcaacaa aatcagagat        660

gctaacagtt ctcagattca ctccaagtga agactcaaag ctggatttat aaatccccac        720

agagccgctg tgcagaggta gagggccggt ttcaggatga ggaagccctc ttggaagcac        780

cgtcctccgg ctaacaagcc tccaacctac tgtcggcagg gagaac                      826


<210>  78
<211>  433
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<222>  ()..()
<223>  "n" refers to an undetermined base


<400>  78
tgcgcagctc cgcgangtgc ccggcgggcc cgaccctcag actcgcttgt ccctggagac        60

caaccctagc gaccaggctc tgccggatcc cgtcgggttt caactcctat tccgaaggtc       120

ctttctcccc taatcacaac acccactcgc ctctttttcc tcctcttcct cagcttccac       180

cgccgaccgg gcagccccag ttacccgata acggctccca aggccccgtg tttacattct       240

ttcccactgg aagcagaaat tatcacgccc aaattcctac ctgccttccc tggattcctg       300

gtttcctaag aaacgggttt ggcccacccc tgggcgttcg aacagtccac agaagcgggc       360

aaaggaaaga cgactcagtc tttcccctcc gccaatctct tctccgggac cacagatccc       420

agaagtcacc gcg                                                          433


<210>  79
<211>  424
<212>  DNA
<213>  Homo sapiens

<400>  79
ggcgggcccg accctcagac tcgcttgtcc ctggagacca accctagcga ccaggctctg        60

ccggatcccg tcgggtttca actcctattc cgaaggtcct ttctccccta atcacaacac       120

ccactcgcct cttttttcctc ctcttcctca gcttccaccg ccgaccgggc agccccagtt       180

acccgataac ggctcccaag gccccgtgtt tacattcttt cccactggaa gcagaaatta       240
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            tcacgcccaa attcctacct gccttccctg gattcctggt ttcctaagaa acgggtttgg      300

            cccacccctg ggcgttcgaa cagtccacag aagcgggcaa aggaaagacg actcagtctt      360

            tcccctccgc caatctcttc tccgggacca caaatcccag aagtcaccgc ggccgctaag      420

            ccga                                                                    424


            <210>   80
            <211>   285
            <212>   DNA
            <213>   Homo sapiens

            <220>
            <221>   misc_feature
            <222>   ()..()
            <223>   "n" refers to an undetermined base


            <400>   80
            caaccggggg gcanaggcga tcaaaantgg ggtgcgctgt ggtgggcgac acgtgtggcg       60

            cgggtctcat tatccgccct tttcacttcc tggactggaa atggcagacc atatgatggc      120

            aatgaaccac gggcgcttcc ccgacggcac caatgggctg caccatcacc ctgcccaccg      180

            catgggcatg gggcagttcc cgagcccccca tcaccaccag cagcagcagc cccagcacgc      240

            cttcaacgcc ctaatgggcg agcacataca ctacggcgcg ggcaa                       285


            <210>   81
            <211>   401
            <212>   DNA
            <213>   Homo sapiens

            <400>   81
            cagatatgta tcctcctctt tccaaccctg cgtccctttg aggcctggtc ggcgttccca       60

            acctgcccct accccaccaa ccctgtccc tttggccatt agtcccggat tatctagcga       120

            tgccccgtgt accgtctggc tttgctgttt actccgcgct cggccagttg aggccttttg      180

            tatttattcc tgattttctc atagggtaa agtgccttcg ggaggatagg acaagtccca       240

            tcctgttcat acgaattaca gctcggactt cgggcccttt tacactgcct tttgtatctg      300

            ttaacttgcg ctaaaaacga ttcggttctt tttttgagg aagggggttg ggggcggag       360

            actctgtcgc ccagtcctga gggccgcggc gcgcaagccg a                          401


            <210>   82
            <211>   268
            <212>   DNA
            <213>   Homo sapiens

            <400>   82
            atagcgcgca caactgtgtc tcttacccag gcacatgcac tatccctgat cccggtgcat       60
```

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gatgggaatg tagtcctgca gccctgtgac caaagggctg ggagtgttta tgagacagca    120

tctctcagca agcaaagcaa ggcctgcaca gccccgcctt ttcctccagt gaggcgcact    180

gttcattaag gagtgttcat gagattacat tttccatcaa gcccagccag tcacgcacag    240

ctctacctct tcctctgccg ccccgcaa                                        268


<210>   83
<211>   989
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base


<400>   83
gggtaatggg ggtgaacaga gagggatgcc gaggccagct tgtagtgtgg ctgttggtct     60
tgtccatcct atggcacaac cctgtcacca cccagatttt gttaggagtc ctcccccaac    120
ttgagagtgg aagctccttt ggcacaaaaa ggggttctgc atcatccccc agcccccagc    180
cctgagcctg ggtctggctc tgaactagac ctccatgaat gaatgcacag catcagtggg    240
gatccaccat catggggaaa tagtagatac aggaatgatt ttccaaccag attacagact    300
atttcaagcc cagccagagc ctaccaggcc aacattcccc aggcttgtgc ctctccgagc    360
ctcagattgc tcatccttca aacgagggac agctctgctg gcattacctg aactctaggg    420
tcctttataa gctcagactc cagcttagag cacacattga gaggctgctg caccccagag    480
ccacatacgt gcaacagagg gtggtccaga ccccttattg gtccccatgg ggtttgagag    540
agaagcctcc agaccagctc aacttctccc tcatctcact taggcctttg cacccagctc    600
ttaggaggtt gtcaggtcac agtgccccat ttcttttctc ttccccagaa atcatgcggg    660
ggatacctgc tcagacagga ccttcatgaa agccaggctg tgaggtgtgt tggggaatgc    720
ataattgata ggccatcgtt cggaggccct cctggaggac caaaatgtaa tcagcagtgg    780
cgagcttgtt cacgcacagga attcctttta catcctggtg aggccaaaga cctggcaagc    840
aagtccctct ggtcattaaa gaagcatcct gacttgangc aggncacctt aggtcactgc    900
agccacaaaa atctttgntg ctggattcna aagtaggcat tggggctggg atctgggctc    960
tggcatcctt gancgtgtcg ggggccaaa                                       989


<210>   84
<211>   250
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base
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<400> 84

cgggctcgaa acttcgaaga ccgcggaacc cgaagcngcn cttggctcna atcgcttcgg   60

ctcgaggcgc ccgtncgggt cacgtgaggt gggggcgggc cgaagagggg ggctcccctc   120

ctcctgccgc agggttggcc gcaagtgcgc ttcaagaggc gcttgatgac ggttaatgtt   180

gcagcccgga agatgacttt tttctcctcc ttgggttgcg gcaggccgtt agtgggaggt   240

cgcgtcccga   250

<210>   85
<211>   402
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   85

ttctcccttg tcatcccctt accagagcca cagaaattat ccctgtgggc tcccttgtcc   60

tcactcggcc ttttctggag ttaagagatc caagccaact actgggtctg ttccctgcta   120

aaatcttagg ccggcgtccc atccacccat ccccatgcct aggactttta agctggcaac   180

ggtacctggg tttagttttc ccttcgtata tcactatctt cgtngcttac cttcttgtgc   240

ctaaagttcc accgatgtgc aaggngatta accactaaag tgcacctgac actactcttg   300

acaaattgca gttgggaggt gagttgatga ctggccggta aatcaaaagt gcttatttag   360

ggagtgaggg ggcccgcggc anaagccgan ttccagcaca ct   402

<210>   86
<211>   595
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   86

gatcccagaa ggttctggag ccgagtatca gagtttgagc agcgagtcca gcctagcaga   60

agcgggtgtt gaccggagac ttttcaatgg tgcaaaatga cacactgctt ttgacttggg   120

gatctgtccc ttgtggcacc agaagctaca acaggtncac ctggattcca gctctagctg   180

gactcggtaa ttgctaagtg ccagctctga agtctgtgat tccgtggaaa tccctttcaa   240

gcccgaattc tgtttttttat gggcctcttg tccaaacagt ttgacttgtg aactctgttt   300

ctgtcaagtt gacacnnggg cttggcaccc attcatgagc cagatgaaag cggctaaatg   360

cccgaaaaaa taaaggnttt tacctttttt ttgaaccatt ggtgagcatn taaaaaaatt   420

aggaaggta aaacccaacc nggncaaacc caactnaaca nttttttttt ccnaaacaag   480

gggggctan ttttcactt ggaaaaacaa acaattttaa ttgantcttg ananggtgga   540

naaccaaaat tttttgttgg gttgggttcc gnagnccgaa ttntgcaaat ttctt   595

<210>   87
<211>   304
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   87
cgtggcccga tgcattcagg gagccctctg tgttggccgc atagcaggtg tagttgccgg   60

catcctggat gaagacgggc gcgatctgta gacccccccga ttcaagaagc atgaacctag   120

gaatccggac agagccactg gccagaatgt ggttttctaa agaacagtgg agaaaagagg   180

catgttacag tcgtaacgct tgaaggaaat gaagatagtg gttagagcca taagcaagta   240

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cgca   304

<210>   88
<211>   296
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<222>   ()..()
<223>   "n" refers to an undetermined base

<400>   88
ggctttcgnt aggagttaat ggggcattgg ngggtgggat ggcagggctg ccagcatctg   60

acccaggagg ctgggaggag ctgctgtgt gaatacacgc tcggcctctc acagtggctg   120

ccgccgcatt agccccttgt gcttcaggga acagagcatc cgtgatggat gagactttaa   180

ttaaagtaat gagacattta taatcgcggt tatctccaaa attaggcctt ttagcaatta   240

ttcctgggga atattcctcc ggtagatagc tcccttttta gaacaacgtc ggcgca   296

<210>   89
<211>   220

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 89
attggcccgn caggcgggaa acangctgnn nttctctnac cgttntccag cactgcccag   60

accaggaggc gcagggagag gaggggncag cggttccgng accgctcctc ccgctgtccc   120

tgctctccag cctntgcctc tgcaggagcc cgcgggantt gccccaggcc cctgtcccca   180

cctgtggctc ccgtcctggt cgctcccggg gccgcggcaa   220

<210> 90
<211> 273
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 90
gnagggnggn ggtcgcggac gccggtgggc agttcttgtt cggtgatgtg ggttaaaaag   60

gactgcagcg aggagccggg gcggcgctcg gagtaatcac cggcggcatc aaaaagcgcc   120

atcatggcat cgaggtcgcg gtctgcttgg gagccggtgg cgccgccgcg caaggcagat   180

gcctgcaggc gcatatccag ctcggtagcg ctccatacct cccacaggat ttcttccaca   240

gaggcttggg cttgtatagc ctgccgcccc gca   273

<210> 91
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 91
acggcttctn tnctaagtga cacggtgtgt gaaattcggt tggggaggta gttctgtaaa   60

ctgcgtctcc ccgccagcta aggaagttga gtgaagggag cgttgccgtc tgggaatcgt   120

agtcctcaca aaggcgtgag taggcggcaa ataaggattt gggtttagcc ttggggattc   180

actcctgtca aagctgttag agaagctccc anaactcnta aagtaacaga aactacttgc   240

ggcaacattt gtaacttcca cctggctcat tatcttccac tgttaccttg tgttctagat   300

aagttataat ttattctaca tatcgttcag aagtcttgtg cctgttccat attgtnagca   360

t   361

<210> 92
<211> 462
<212> DNA
<213> Homo sapiens

<400> 92
gctgcccaca ctggatggga aggaccggcg cctgcagcat ctgccctcca agccttcgta   60

gctccctcct tcctgcagga taaactctaa actccttagc acaacgtggg agccttctca   120

gagactgggt ccaacccatc tccagccgca gcctcccctc ctggccccac tgccacaccc   180

ccgggcctcc ggccacactg agcctctccc ggtttcccag gatacaacac tcgcccattc   240

atagtgtggt gccttttgca cgtgctgttc ctctgcttgg ggatgctgtt ggtctttctc   300

agccaggtga agaggacgct gaatgtcacc tgcttgagta tcaggaccgg ggactgggcg   360

ctggacctag actcttggcc ctggagagaa gccctgcatg gggccgcagc ctgcccccgt   420

ccctgctcac agaaaagctc agccttgcag ccgcgtggga ga   462

<210> 93
<211> 591
<212> DNA
<213> Homo sapiens

<400> 93
caaagtcacc tccacggtgc ggctcagcag ctcggcacac ttggtcatgg tgtcggggaa   60

ggcgccctcc agctgtaggt gggtagtggc agaacaggag ggtgagggga gagtccgaac   120

tgtccccact tggccgttcc ctccccactg gggggccctg agccagtggc ctcctctctc   180

ggggcctccc cggaaggagc caaggtctgt ctgcgaggca ccggtccccg gccacggcca   240

tcagccccca gaggtggatc agggcatcac ccccactcca cagctgaggc caggggggtca   300

gggaggcaac cagggcagac ctggaacctg gctctgagac aggacggccg agggcccctc   360

cactctccct ccctcggggt gggcactgac ctggacgcca aagatgtcct cacactggtg   420

gcgtttgagt agggcccact cggacatctg gccctgcagc aggttggtgc agacggccat   480

ctctccacat gtcacatccg ccccgaagcg cttgcagatc cgtcggaagg gcaggttccc   540

acactgcggg gggagcagga cagacacaca tgctcttgca cgcgcacctc a   591

<210> 94
<211> 279
<212> DNA

<213> Homo saps

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 94
ttntgagttt tggcctgccc acagtctagc cctggacaga gaatccgagg ctcagccatg   60

ctgcagcacc caggacactg catcccagca cctgcccgaa aatcagccca gggacccaaa   120

ggaaagcagg ctccaagctc cccggaagcc aaggaaaata ggaaaacata tcctgccccg   180

gggacacctt ctggaactat gaccacatgc acttgacctt ccggaacaat caccgcatgc   240

acctgacctc ccggaactgt caccaccgcg cgcacctca   279

<210> 95
<211> 351
<212> DNA
<213> Homo sapiens

<400> 95
cctttattat tgttaaacgt cacccagaaa acccttaact cttagacagc ggctctcatt   60

aagcaaaagg ggaggcacat gaagctccag gcagggccgg gagggaaccg tgaagccaaa   120

ggctctggga gcccccaggc acctgcgttt gcattttcat cctggaggag accaggcctc   180

tggggctgct ccccgggggtg cagagaggag gggtctttct tggtgtgtaa catactcatt   240

gattcagtca cctgaccttt gactccatgt attttgttga gtctggatgt gtggtgtgct   300

ctgcccagca gctgggatcc acatgagcac agacatggtc cccccgcggc a   351

<210> 96
<211> 171
<212> DNA
<213> Homo sapiens

<400> 96
ttgagtgtcg cgtgaatacc taggggacac tcaggggaat gatggctccc ccgagaggta   60

aagggtggaa agaaggggcc tcagcaggtt aggtcttgct gggtccttct gtagggcgtc   120

tgggagatag atccgtgggg ctcctagggt cgccctacc cggcgcgggc a   171

<210> 97
<211> 743
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> ()..()
<223> "n" refers to an undetermined base

<400> 97

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cctccctggc ccttgttccc aaggagcttc ccttgtccca gcctcttcgc cagtgacttc      60

tcactggacc attcctttac aaggagcctg ttttttgtgt ttttttttta cacctttttt     120

cttctatttc acagaaggaa caccggacgt ccctntgtga tggcagcagc catgctgcct     180

ntgtttccgc tcaggggttc tntgccacct ccaattccac ccagtctntt ggcctcggct     240

gggcttcggc tcccgcctnt gngccaaaaa ttgcaatgcc cgcggtcagg gcnctttgcg     300

gagtctcacc gcctgcggag gcttgattcc ctcctcacag gcagcagcgt ttgatggccg     360

gtgacncccc cctttccaag cacatntntc atggcccctg aatgccactt acagggcgtc     420

cctccctgtg ctaagtgctg cctgganctt tgggtgtggc agcagcaaan acctctaccc     480

ttgnggatgt tcgtttcggg gnggaaagac anatancaaa gttggtcgta aactgtaaag     540

tgtgctggga ggaaactgag gcagggaggg cctggtgcca ctggggagcn ctgccccgac     600

cccatgtgct tcccaggctc ccttggagcc acgtggatgg cgacttcctg accttggagg     660

ccgnggncct cantcctcat gctcgatggc gtcanccccc tcttggggaa atccaancat     720

tcctgacctg aaaatgcacc cnc                                             743
```

<210> 98
<211> 589
<212> DNA
<213> Homo sapiens

<400> 98

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ttgccgcgct gataaaggaa gcgtctagaa ggtctcccca gccttcatca tctgagactt      60

ggctttcagc cccaaagcac taggccctgc tgttaacctt ccaccattaa cctttggtgc     120

tcttcaatta gcagcagcca ggggtccttg gcaggtatga gaatttggaa ggacagcccc     180

agggcatggc ccccggctgc agcaaaagtt ctaagtgttc ttctgttgga aggaagccca     240

ggagatattg atcagctgca ggtggggggag gccccagatc ccaccttgc ctgcctccag     300

gagaaggttc tccatgggcc aaaatggagg cagagtccca ctttgcctgg gcagctccct     360

gagcatggct ccctgtggac ggagctgagt gacgtcatga ctctaggcct caacaaaaga     420

gctttggaaa atcccgatga ttcgaattgt attaaatcaa caaacatcgg gttgcacagt     480

tactagaaaa cggagatctg cgtcatcact tactagacac gtgaccttga acggcggctt     540

ccccgtgtga aacagcaaag ttctgtaacc cccatgaacg cgcctctca                 589
```

<210> 99
<211> 538
<212> DNA
<213> Homo sapiens

<400> 99

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tgccgcgtct gaccctactc tcacaaagac tttccaacta gcataattga gttaaatggt        60

cccccaact cccttaattc aagctaaact tgcagtttaa caactatagg agtgatatct       120

acacattaat gccacacttt aacatgccta acactacaca tgaacacgct tccgggtgct       180

gttacatccc gctctctccc aagcacgaga cacaggcagg atgctgacgt cctgcttctc       240

tgctgcgggc gggaagtcaa gactccggat ttgctgcagg agttgccgtg gggatcctga       300

cttcacgcag gagatggtcg gcctctggaa gtgcctggcc cgtttatcct tgaaatctac       360

ctgtgcaggt ggtccttgcc tcagcccctc aggacaacac aggtctttcc taagttacag       420

ggagaccatc agattgtcgt gtccgagccc cctgaagtgg aacccacagt ctccattcag       480

tctgccctca gtttccctcc cctctgcagg gccattgctg ctgtggacgc gcctctca       538
```

<210>   100
<211>   486
<212>   DNA
<213>   Homo sapiens

<400>   100

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agaggtagaa aaaggagtta gaagcaaaga ggaaaaaata aataaacagg caacaaaaac        60

ccaacccagc cagcctgagc catttgcatt agtgttcatt taggaaatta gcagacggga       120

aacgctgggg agtggagtgg cccccggcct tggggactgc agagcccgct cagccctggg       180

tggctgggcc cacatgggct gtgccccagg agcacaggag gacccagagg gtggccgaga       240

gagcctcgcc gggctccggt atgggtcctg gcccctcaca ggtgcgagcc tggcccagtg       300

actgtggacg ctgtgggaga gcaggcctcc gatacgcagg gctgggactg ctgacctgga       360

aggtggtgcc gggcgtgtct ggtgaaggcg ccgttggcag ctagagagag acggcggatg       420

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ggcgca       486
```

<210>   101
<211>   450
<212>   DNA
<213>   Homo sapiens

<400>   101

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aattgaacca gggtgcacgg ccagcgccag acacagtgag cttcatggca actccagttt        60

accggtgaga accatggggc cactcagaga ggcaaagagc ctcacccgag tgagtcctct       120

ggcttctccc cacctgggcc gggccccagg ccgcgctgtg gttccctttc cagccgtcat       180

ccctgggtga tgggaggtgg gcattctgtt caaccttgtg ggtcagggag ccagggccag       240

tgtgcagatg agaagaggct gcggttactg gcgatgcgag ggactgtccc cttcgtgggc       300
```

```
          acttctctt  ttgaggccag  tgaaatgtgt  tccctggggt  tgtattcctg  agaaggcctc      360

          atttaaaggg  agccgccaaa  ccaagtgggc  ttagcaaaag  cagtttgtca  cctggcagca      420

          cgtgtgagcc  tcgcccggac  gcgcctctca                                          450


          <210>  102
          <211>  292
          <212>  DNA
          <213>  Homo sapiens

          <400>  102
          agcgcggcct  ggcagattgc  ccattaatga  aactcagtgg  gcagaggctg  ctgagggaca       60

          cggattccca  ctccccgggg  gagggggtgg  aaatggcttc  ctccctctgc  ttccctacca      120

          ccagtaatgg  ggagctcacc  atgcttagaa  gactcttcct  tgcatggagt  tcgggcctcc      180

          tccctgcacc  taccacccta  gtggccccaa  gtcttaaggc  tgaaggttaa  tcctgtgtcc      240

          ttcagaagca  aaggctgcaa  ccgataccaa  acagaggtgg  ccagcgcggg  ca             292


          <210>  103
          <211>  395
          <212>  DNA
          <213>  Homo sapiens

          <220>
          <221>  misc_feature
          <222>  ()..()
          <223>  "n" refers to an undetermined base


          <400>  103
          agagcttatc  ccgcgagcac  aagggagccg  gggcctgggc  cgccgtggga  aggggctcct       60

          gccttccggg  gacgcggtca  gggaagtcca  gccggggtgc  tctctgcact  gcgggtgccg      120

          ggctcggcag  aggccaaccc  ggcaaaacga  gcaggatctc  ccggccccac  cctagtgggc      180

          tccgcctgcc  ccaacaacca  tcctgccatc  ctccctgcga  gacaggtgac  tttcctctct      240

          gatgcggtgc  atctgtcatc  tgtctaacgg  gcccattccc  cagtgaaaca  cccccaacca      300

          aagacacgaa  ggggaaggcg  caagcttcta  ccaagctcan  tttgcccatc  tggtgcccac      360

          ctgcctngta  tttggtgact  tggaggatag  gaagg                                   395
```